

REMARKS

The present amendment is submitted in response to the Office Action mailed May 19, 2006. Claims 1-14 are currently pending in the application. In view of the amendments above and the remarks to follow, reconsideration and allowance of this application are respectfully requested.

Information Disclosure Statement

In the Office Action, it is stated that the information disclosure statement is defective in that it is not in conformance with 37 CFR 1.98(b) which requires a list of all patents, publications, or other information submitted for consideration by the Office. A proper information disclosure statement in conformance with 37 CFR 1.98(b) is being submitted herewith.

Drawing Objection

In the Office Action, the drawings were objected to for failing to show every feature of the invention specified in the claims. A proposed changed Figure 1 and 3 are enclosed, and proposed new Figures 5 and 6. Applicants respectfully request withdrawal of the drawings objection and approval of the enclosed proposed drawing changes.

35 U.S.C. §102(b)

Claims 1-7 and 14 were rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 3,176,124 – Cibie.

Applicants respectfully traverse the rejection of claims 1-7 and 14 under 35 U.S.C. §102(b), however, Claim 1 has been amended. It is respectfully submitted that claims 1-7 and 14 are patentable over Cibie for at least the following reasons.

In the Office Action, the Examiner alleges that Cibie discloses an illumination system comprising (1) a reflecting surface having four parabolic-shaped reflector segments arranged around a central optical axis with optical axes that coincide with each other/reflect light according to total internal reflection (Fig. 8), (2) a segment optical axis parallel to the central optical axis, (3) a light source positioned below/a light-source edge coincides with the central optical axis and that operates over a 180 degree angle in a direction facing away from the reflecting surface (Fig. 17); and (4) wherein each reflector segment is positioned such that the segment optical axis intersects with an edge of the light source.

Regarding point (3), Applicant's respectfully submit that Cibie does not teach a light source that operates over a 180 degree angle in a direction facing away from the reflecting surface.

The illumination system of Cibie emits light over an angle of at most 180, only with the aid of screening. Further, the direction of the light in Cibie is not facing away from the reflecting surface, but is instead, perpendicular to the central axis.

In Cibie, a spiral filament light source emits light in all directions and is restricted by certain occulting elements. For example, the occulting elements include the use of a system of cups, screens and masks (See Cibie at Col. 10, lines 10-13), or a light blocking element screen (3) (See Cibie at Col. 4, lines 61-63), or two masks 6 and 7 formed by

opaque and non-reflecting strips placed on either side of screen 3 (See Cibie at Col. 8, lines 68-70).

In contrast to Cibie, the inventive illumination system does not employ occulting elements to achieve a light source that operates over a 180 degree angle. Instead, the illumination system of the invention utilizes a light source that operates in half a hemisphere (i.e., over a 180 degree angle). By combining this half a hemisphere light source with reflector segments, such that the segment optical axis of each reflector segment substantially intersects with an edge of the light source, a sharp cut off is achieved between the illuminated area and the glare area of the light beam illuminated by the illumination system. Support for this novel combination is found in the specification at par. 11 and at other places. This novel combination precludes the need for occulting elements to restrict the operating angle of the light source, as taught in Cibie.

Independent Claim 1 has been amended to better define Applicant's invention and to further distinguish from Cibie. Claim 1 now recites limitations and/or features which are not disclosed by Cibie.

Claim 1, as amended, recites, in part:

...characterized in that the light source in operation emits light over an angle of at most 180, unrestricted by a boundary surface, in a direction facing away from the intersection of the central optical axis and the reflecting surface. [Emphasis Added]

Regarding point (4), Applicant's respectfully submit that Cibie does not teach,
“wherein each reflector segment is positioned such that the segment optical axis intersects with an edge of the light source.”

In Cibie, the segment optical axis intersects with the screen edge and not an edge of the light source.

It is respectfully submitted that at least the limitations and/or features of Claim 1 which are underlined above is not anticipated by the disclosure of Cibie.

Accordingly, withdrawal of the rejection under 35 U.S.C. §102(b) with respect to Claim 1 and allowance thereof is respectfully requested.

Claims 2-7 and 14 depend from independent Claim 1 and therefore contain the limitations of Claim 1 and is believed to be in condition for allowance for at least the same reasons given for Claim 1 above. Accordingly, withdrawal of the rejection under 35 U.S.C. §102(b) and allowance of Claims 2-7 and 14 is respectfully requested.

35 U.S.C. §103(a)

In the Office Action, Claims 8 and 9 were rejected under 35 U.S.C. §103(a) as being unpatentable over Cibie in further view of U.S. Patent No. 6,406,172 to Harbers et al. (hereinafter Harbers).

Claims 8 and 9 depend from Claim 1 and therefore contain the limitations of Claim 1. Hence, for at least the same reasons given for Claim 1, Claims 8 and 9 are believed to be allowable over the Cibie in view of Harbers.

Accordingly, applicant respectfully request withdrawal of the rejection under 35 U.S.C. §103(a) with respect to Claims 8 and 9 and allowance thereof is respectfully requested.

35 U.S.C. §103(a)

In the Office Action, Claims 10 and 11 were rejected under 35 U.S.C. §103(a) as being unpatentable over Cibie in further view of U.S. Patent No. 6,283,623 to Chinniah et al. (hereinafter Chinniah).

Claims 10 and 11 depend from Claim 1 and therefore contain the limitations of Claim 1. Hence, for at least the same reasons given for Claim 1, Claims 10 and 11 are believed to be allowable over the Cibie in view of Chinniah.

Accordingly, applicant respectfully request withdrawal of the rejection under 35 U.S.C. §103(a) with respect to Claims 10 and 11 and allowance thereof is respectfully requested.

35 U.S.C. §103(a)

In the Office Action, Claims 12 and 13 were rejected under 35 U.S.C. §103(a) as being unpatentable over Cibie in further view of U.S. Patent No. 4,694,382 to Sales.

Claims 12 and 13 depend from Claim 1 and therefore contain the limitations of Claim 1. Hence, for at least the same reasons given for Claim 1, Claims 12 and 13 are believed to be allowable over the Cibie in view of Sales.

Accordingly, applicant respectfully request withdrawal of the rejection under 35 U.S.C. §103(a) with respect to Claims 12 and 13 and allowance thereof is respectfully requested.

Conclusion

In view of the foregoing amendments and remarks, it is respectfully submitted that all claims presently pending in the application, namely, Claims 1-14 are believed to be in condition for allowance and patentably distinguishable over the art of record.

If the Examiner should have any questions concerning this communication or feels that an interview would be helpful, the Examiner is requested to call Frank Keegan, Esq., Intellectual Property Counsel, Philips Electronics North America, at 914-333-9669.

Respectfully submitted,



Michael A. Scaturro
Reg. No. 51,356
Attorney for Applicant

Mailing Address:
Intellectual Property Counsel
Philips Electronics North America Corp.
P.O. Box 3001
345 Scarborough Road
Briarcliff Manor, New York 10510-8001